This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

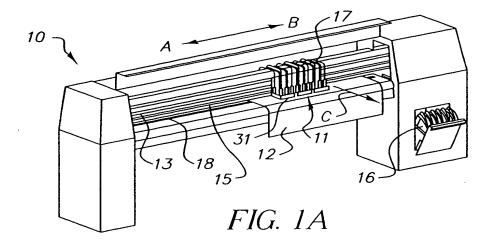
- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.



METHOD AND APPARATUS OF OPTIMIZING DISCRETE DROP VOLUMES FOR MULTIDROP CAPABLE INKJET PRINTERS Inventors Rodney L. Miller, et al US Serial No. 09/940,195



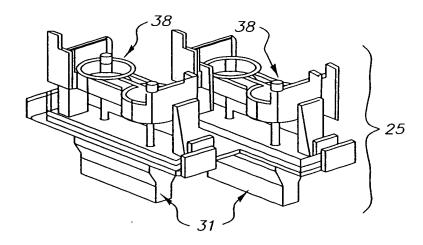


FIG. 1B

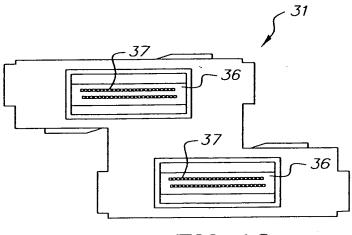


FIG. 1C



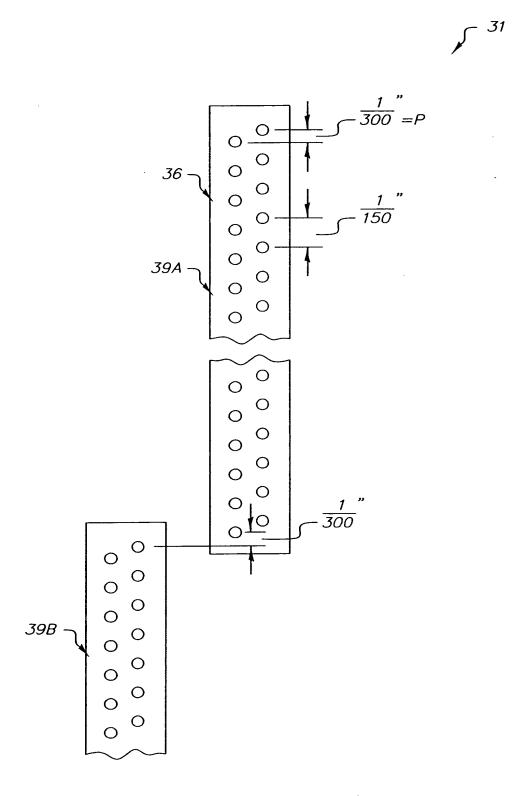
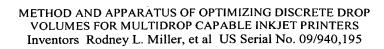
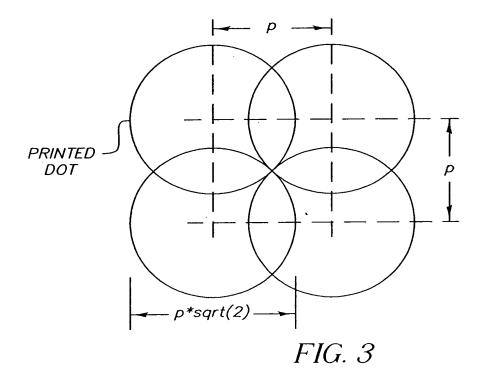


FIG. 2







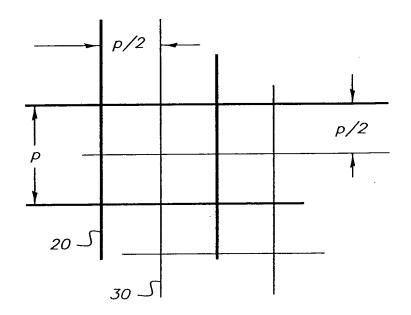
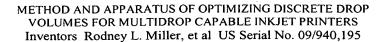


FIG. 4





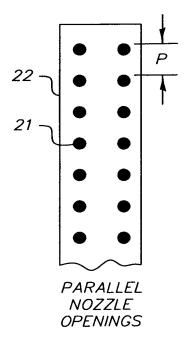


FIG. 5A

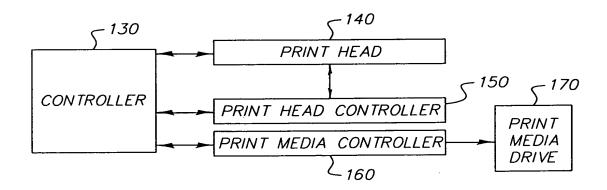
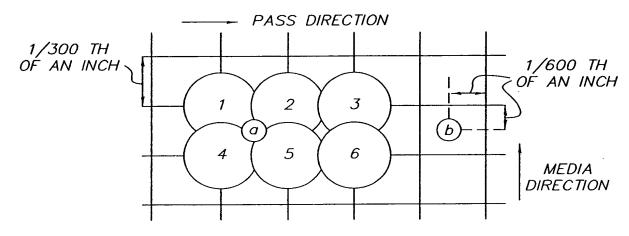


FIG. 5B





DROPS 1 TO 6 ARE ON THE ORIGINAL RASTER, DROPS A & B ARE ON THE SHIFTED RASTER

FIG. 6

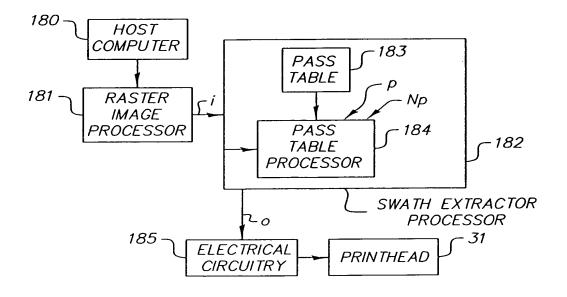
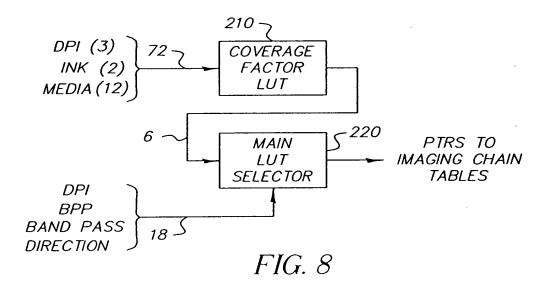


FIG. 7





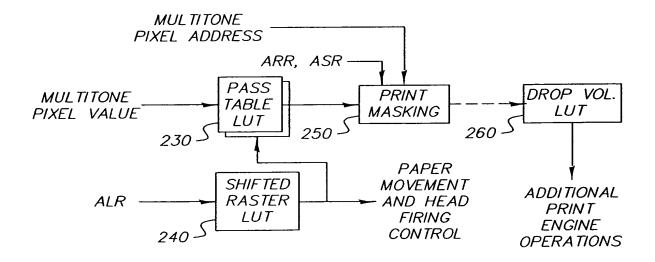


FIG. 9



REFERENCE RASTER PASS TABLE

MULTI-TONE LEVEL	DROP VOLUME INDEX
0	A
1	С
2	Ε
3	F

FIG. 10A

SHIFTED RASTER PASS TABLE

MULTI-TONE LEVEL	DROP VOLUME INDEX
0	Α
1	Α
2	Α
3	В

FIG. 10B

SHIFTED RASTER LUT

PRINT	SHIFT
PASS	INDICATOR
0	F
1	T
2	F
3	T

FIG. 10C

PRINT MASK

0	1
1	0

FIG. 10D

DROP VOLUME LUT

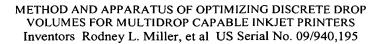
DROP VOLUME INDEX	DROP VOLUME
Α	0
В	8PL
С	16PL
D	32PL
Ε	48PL
F	64PL

FIG. 10E



METHOD AND APPARATUS OF OPTIMIZING DISCRETE DROP VOLUMES FOR MULTIDROP CAPABLE INKJET PRINTERS Inventors Rodney L. Miller, et al US Serial No. 09/940,195

(PASS O DATA	REFERENCE PASTED	2310XX		(PASS O DATA	SHIFTED	771047			PASS 1	REFERENCE	KU/04K		DATA	SHIFTED	とりつそと	
0	64	0	0		0	80	0	0		64	0	64	0	8	0	8	0	
48	0	64	0		0	0	8	0	-	0	64	0	64	0	8	0	8	
0	48	0	64		0	0	0	8		48	0	48	0	0	0	0	0	
16	0	48	0		0	0	0	0		0	48	0	48	0	0	0	0	
0	16	0	48		0	0	0	0		16	0	16	0	0	0	0	0	
0	0	16	0		0	0	0	0		0	0	0	91	0	0	0	0	
		Ì		_	_	_								 			FIG 11	1 1 · V
							HOST	2	3	3	0						FI	/
							FROM HOST	2	3	3	3							
							IMAGE	2	2	2	3	(0,0)						
							TI TONE	1	2	2	2	- (i, i) -						
							2-BIT MULTITONE IMAGE	1	1	1	2	LOCATION $(i,j)=(0,0)$						
							2-BI	0	0	1	1)7 –						
							• •	<u> </u>	l									





REFERENCE RASTER PASS TABLE

MULL
DROP VOLUME INDEX
Α
В
С
С
D
D
Ε
Ε
F
F
F
Α
Α
Α
Α
Α

SHIFTED RASTER PASS TABLE

77133 TABLE					
MULTI- TONE LEVEL	DROP VOLUME INDEX				
0	Α				
1	Α				
2	Α				
3	В				
4	Α				
5	В				
6	Α				
7	В				
8	Α				
9	В				
10	С				
11	Α				
12	Α				
13	Α				
14	Α				
15	Α				

SHIFTED RASTER LUT

PRINT PASS	SHIFT INDICATOR
0	F
1	Τ
2	F
3	Τ
4	F
5	Τ
6	F
7	Τ

FIG. 12C

FIG. 12A

FIG. 12B

PRINT MASK

0	1	0	1
1	. 0	1	0
0	1	0	1
1	0	1	0

FIG. 12D

DROP VOLUME LUT

DROP VOLUME INDEX	DROP VOLUME
Α	0
В	8PL
С	16PL
D	32PL
Ε	48PL
F	64PL

FIG. 12E



METHOD AND APPARATUS OF OPTIMIZING DISCRETE DROP VOLUMES FOR MULTIDROP CAPABLE INKJET PRINTERS Inventors Rodney L. Miller, et al US Serial No. 09/940,195

REFERENCE RASTER
PASS TABLE

1 /133	MULL
MULTI- TONE LEVEL	DROP VOLUME INDEX
0	А
1	В
2	С
3	D
4	Ε
5	F
6	F
7	Α
8	Α
9	Α
10	A
11	Α
12	Α
13	Α
14	Α
15	Α

FIG. 13A

SHIFTED RASTER PASS TABLE

MULTI— TONE LEVEL	DROP VOLUME INDEX
0	Α
1	Α
2	Α
3	Α
4	Α
5	Α
6	В
7	Α
8	Α
9	Α

	/ 1
9	Α
10	Α
11	Α
12	Α
13	А
14	Α
1.5	Α

FIG. 13B

SHIFTED RASTER

207		
PRINT PASS	SHIFT INDICATOR	
0	F	
1	Τ	
2	F	
3	Τ	

FIG. 13C

PRINT MASK

0	1
1	0

FIG. 13D

DROP VOLUME LUT

DROP VOLUME INDEX	DROP VOLUME
Α	0
В	8PL
С	16PL
D	32PL
Ε	48PL
F	64PL

FIG. 13E